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UNITED STATES PATENT AND TRADEMARK OFFICE

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BEFORE THE BOARD OF PATENT APPEALS  
AND INTERFERENCES

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*Ex parte* GARY J. CROSS

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Appeal 10/042,505  
Application 2008-1001  
Technology Center 2400

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Decided: December 8, 2008

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Before JOSEPH L. DIXON, HOWARD B. BLANKENSHIP, and  
STEPHEN C. SIU, *Administrative Patent Judges*.

BLANKENSHIP, *Administrative Patent Judge*.

DECISION ON APPEAL  
STATEMENT OF THE CASE

This is an appeal under 35 U.S.C. § 134(a) from the Examiner's final rejection of claims 1-7, 9-17, 19-27, 29 and 30, which are all of the claims remaining in this application. We have jurisdiction under 35 U.S.C. § 6(b).

We reverse the Examiner's rejections against claims 1-7, 9-17, 19-27, 29 and 30. We enter a new ground of rejection under 35 U.S.C. § 112, second paragraph against claims 21-27, 29 and 30.

### *Invention*

Appellant's invention relates to a method, system and computer program product for securing radio communications utilizing a conventional radio. A conventional radio and a computer system are provided. The computer system is separate and apart from the conventional radio. The conventional radio is capable of receiving an input analog signal from a microphone and then transmitting the input analog signal. The conventional radio is incapable of encrypting the input analog signal. The computer system is coupled between the microphone and the radio such that inputs into the microphone are received first by the computer system. The computer system receives an analog input from the microphone, encrypts the input into an encrypted voice file utilizing public key encryption, and passes the encrypted voice file into the microphone port of the radio. The radio then transmits the encrypted voice file (Spec 4:3-19, Figs. 4 and 5).

### *Representative Claim*

1. A method for securing radio transmissions utilizing a conventional radio, said method comprising the steps of:

providing a conventional radio, said conventional radio being incapable of encrypting or decrypting signals, said radio including a conventional microphone port that is configured to be coupled to a conventional microphone and a conventional speaker port that is configured to be coupled to a conventional speaker, said radio remaining unmodified;

providing a computer system coupled between a microphone and said radio, wherein inputs into said radio are received first by said computer system, said computer system being separate and apart from said radio;

receiving, within said computer system, an input analog signal from said microphone;

encrypting, within said computer system, said input analog signal utilizing public key encryption to form an encrypted voice file;

passing said encrypted voice file from said computer system to said microphone port that is included within said unmodified radio; and

transmitting said encrypted voice file utilizing said unmodified radio, wherein radio transmissions from said radio are secured.

#### *Prior Art*

The Examiner relies on the following references:

Ashby	US 5,305,384	Apr. 19, 1994
Baugh	US 5,815,553	Sep. 29, 1998
Herlin	US 5,915,021	Jun. 22, 1999

#### *Examiner's Rejections*

Claims 1-7, 9-17, 19-27, 29 and 30 stand rejected under 35 U.S.C. § 103(a) as being unpatentable over Baugh, Herlin, and Ashby.<sup>1</sup>

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<sup>1</sup> The Examiner's Answer does not repeat a 35 U.S.C. § 112, second paragraph rejection from the Final Rejection. We conclude that the § 112 rejection has been withdrawn. *See Ex parte Emm*, 118 USPQ 180, 181 (Bd.

### ISSUES

(1) Has Appellant shown the Examiner erred by failing to identify a teaching of “providing a computer system coupled between a microphone and said radio, wherein inputs into said radio are received first by said computer system, said computer system being separate and apart from said radio” in the prior art, as recited in claim 1?

(2) Has Appellant shown structure in the Specification that performs all the functions recited in claims 21-27, 29, and 30?

### FINDINGS OF FACT

1. The Examiner finds that Baugh and Herlin do not specifically teach providing a computer system being separate and apart from said radio (Ans. 5).

2. The Examiner finds that Ashby teaches “providing a computer system coupled between a microphone and said radio, wherein inputs into said radio are received first by said computer system, said computer system being separate and apart from said radio (fig. 1, ref. num 12, separate from other components)” (Ans. 5).

3. Fig. 1 of Ashby shows a communication device having a radio interface (14) between a CPU (16) and a radio (12).

4. Fig. 2 of Ashby shows a microphone (38) as part of the radio (12).

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App. 1957) (rejection not referred to in the examiner’s answer is assumed to have been withdrawn).

5. According to Ashby, when PTT (push-to-talk) on microphone 38 is activated, audio input is rerouted from terminal A of block 62 (Fig. 2) to terminal A of controller 72 (Fig. 3). In normal mode, terminals A and B are coupled such that analog voice from microphone 38 is returned directly to terminal B of block 62 (Fig. 2) to modulator 44 for transmission over radio channel 48. Ashby col. 21, ll. 16-33.

6. In the Ashby device secure mode, the analog signal is routed from terminal A of block 62 (Fig. 2) through audio out 74 (Fig. 3) to device 10 (Fig. 1) for digitizing, voice coding, and encrypting. The resultant signal is received at terminal B of block 62 (Fig. 2) for modulation and transmission over radio channel 48. Ashby col. 21, ll. 34-55.

7. Fig. 4 of Ashby depicts a method of encoding voice using the communication device of Fig. 1. The voice signal begins in analog form at microphone 38. Ashby col. 21, ll. 56-59.

8. Figure 1 of Ashby does not teach providing a computer system coupled between a microphone and a radio, wherein inputs into the radio are received first by the computer system.

## PRINCIPLES OF LAW

### *Prima Facie Case of Unpatentability*

The allocation of burdens requires that the USPTO produce the factual basis for its rejection of an application under 35 U.S.C. §§ 102 and 103. *In re Piasecki*, 745 F.2d 1468, 1472 (Fed. Cir. 1984) (citing *In re Warner*, 379 F.2d 1011, 1016 (CCPA 1967)). The one who bears the initial burden of presenting a prima facie case of unpatentability is the Examiner. *In re Oetiker*, 977 F.2d 1443, 1445 (Fed. Cir. 1992).

### *Indefiniteness*

Lack of any structure in the disclosure that corresponds to a claimed “means” indicates that the claim fails to pass muster under 35 U.S.C. § 112, second paragraph. *See, e.g., Biomedino, LLC v. Waters Technologies Corp.*, 490 F.3d 946, 953 (Fed. Cir. 2007); *Atmel Corp. v. Information Storage Devices, Inc.*, 198 F.3d 1374, 1381-82 (Fed. Cir. 1999); *In re Dossel*, 115 F.3d 942, 944-46 (Fed. Cir. 1997).

## ANALYSIS

### *I. Section 103 rejection of claims 1-7, 9-17, 19-27, 29, and 30*

Claim 1 recites providing a computer system coupled between a microphone and said radio, wherein inputs into said radio are received first by said computer system. With respect to “inputs,” claim 1 also requires an input analog signal that is received within the computer system, encrypted within the computer system into an encrypted voice file, and then passed from the computer system to the microphone port that is within the radio.

We agree with Appellant to the extent that the rejection fails to show that Ashby teaches the feature attributed to the reference; i.e., the computer system coupled between a microphone and the radio, such that inputs into the radio are received first by the computer system. Appellant thus has demonstrated error in the Examiner’s *prima facie* case for obviousness of the subject matter of claim 1.

Each of the other independent claims on appeal (11 and 21) recites similar limitations to those of claim 1 for which the rejection has been shown to be deficient. We therefore cannot sustain the rejection of claims 1-

7, 9-17, 19-27, 29, and 30 under 35 U.S.C. § 103 over Baugh, Herlin, and Ashby.

*II. New Ground of Rejection -- 37 C.F.R. § 41.50(b)*

We reject claims 21-27, 29, and 30 under 35 U.S.C. § 112, second paragraph as being indefinite.

Claims 21-27, 29, and 30 are in the form of “means-plus-function” claims to be interpreted under 35 U.S.C. 112, sixth paragraph.

Independent claim 21 recites “instruction means for providing a conventional radio . . . .” According to Appellant’s Summary of Claimed Subject Matter, the structure corresponding to the “means” is described at page 6, lines 7 through 15 and at page 1, lines 19 through 22 of the Specification. (*See* Br. 7). We do not find disclosure of structure capable of performing the claimed function, either in the lines relied upon by Appellant or in the remainder of the disclosure.

Neither do we find, with respect to claim 21, corresponding structure for the “instruction means for providing a computer system” as set forth in the claim.

Dependent claim 26 recites two instruction means for providing a second conventional radio and a second computer system. Neither of the means appear to relate to any corresponding structure in the disclosure.

Claims 21-27, 29, and 30 thus fail to pass muster under 35 U.S.C. § 112, second paragraph.



### CONCLUSIONS OF LAW

(1) Appellant has shown the Examiner erred by failing to identify a teaching of “providing a computer system coupled between a microphone and said radio, wherein inputs into said radio are received first by said computer system, said computer system being separate and apart from said radio” in the prior art.

(2) Claims 21-27, 29, and 30 are unpatentable under 35 U.S.C. § 112, second paragraph.

### DECISION

The Examiner’s rejections of claims 1-7, 9-17, 19-27, 29, and 30 are reversed.

In a new ground of rejection, we have rejected claims 21-27, 29, and 30 under 35 U.S.C. § 112, second paragraph as being indefinite.

In addition to reversing the Examiner’s rejection(s) of one or more claims, this decision contains a new ground of rejection pursuant to 37 C.F.R. § 41.50(b). 37 C.F.R. § 41.50(b) provides that “[a] new ground of rejection pursuant to this paragraph shall not be considered final for judicial review.”

37 C.F.R. § 41.50(b) also provides that Appellant, WITHIN TWO MONTHS FROM THE DATE OF THE DECISION, must exercise one of the following two options with respect to the new ground of rejection to avoid termination of the appeal as to the rejected claims:

(1) *Reopen prosecution*. Submit an appropriate amendment of the claims so rejected or new evidence relating to the claims so rejected, or both, and have the matter

reconsidered by the examiner, in which event the proceeding will be remanded to the examiner. . . .

(2) *Request rehearing*. Request that the proceeding be reheard under § 41.52 by the Board upon the same record. . . .

No time period for taking any subsequent action in connection with this appeal may be extended under 37 C.F.R. § 1.136(a).

REVERSED  
37 C.F.R. § 41.50(b)

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